

REMARKS

Claims 1-4 and 6-28 are pending in the present application and stand rejected. Claims 1, 3, 6, 8, 9, 12, 15, 17 18, 19, 20, 21, 22 and 24 have been amended. Examiner's reconsideration of the claim rejections is respectfully requested in view of the following remarks.

Claim Rejection under 35 U.S.C. § 112

Claims 3, 4, and 14 stand rejected under 35 U.S.C. § 112, first paragraph. The claims had been amended previously to exclude the times of the data frames from the second delay. However, the examiner states in paragraph 3 of the Office Action that "negative limitations require explicit recitation in the specification". Further, paragraph 10 of the Office Actions states that the "examiner finds no recitation in the specification that explicitly states that a second time delay 'excludes times of the data frames'. It is respectfully submitted that the examiner's standard of review for a negative limitation is incorrect. *"Any claim containing a negative limitation which does not have basis in the original disclosure should be rejected under 35 U.S.C. 112 first paragraph, as failing to comply with the written description requirement. Note that a lack of literal basis in the specification for a negative limitation may not be sufficient to establish a prima facie case for lack of descriptive support"*. See MPEP 2173.05. Therefore the negative limitation need only have a basis in the original disclosure and need not require explicit recitation. The basis for excluding times of the data frames from the second time delay can at least be found on page 14, lines 27-29 of Applicants' specification and FIG. 5. Specifically, the cited lines state that "the second time delay TD2 is the time interval between received data frames DF1 and DF2" and FIG. 5 illustrates a second delay TD2 that is between frames

DF1 and DF2, but does not include the times of DF1 or DF2. Accordingly, withdrawal of the rejection under 35 U.S.C. § 112, first paragraph, is respectfully requested.

Claim rejection under 35 U.S.C. § 102

Claim 4 stands rejected under 35 U.S.C. § 102(e) as being anticipated by Connor. It is respectfully submitted that Connor does not teach or suggest, for example, generating an interrupt in a NIC based on passing of a *packet delay time which is a time interval between received data frames and excludes times of the data frame*.

In paragraph 3 of the Office Action, the examiner states that the delay of Connor is still a gap between frames (greater than the minimum gap) but does not include the times of the data frames.

Applicants believe this is incorrect because a delay that is greater than the minimum gap must at least include a time portion of a data frame. Indeed, paragraph 26 of Connor states that the inter-frame gap is “the time differential between incoming packets.” Since the first threshold of Connor is greater than the time differential between incoming packets, it logically follows that the first threshold must at least include a time portion of a data frame. This is further evidenced by FIG. 5 and FIG. 6 of Connor which both illustrate a first delay 151 and a second delay 152 as dotted lines, each including time of a first packet 515a (615a in FIG. 6) and extending beyond into an inter-frame gap 517b (617b in FIG. 6).

Accordingly, claim 4 is not anticipated by Connor, and withdrawal of the rejection under 35 U.S.C. § 102 is respectfully requested.

Claim rejection under 35 U.S.C. § 103

Claims 12-14 stand rejected under 35 U.S.C. § 103(a) as being obvious over Connor, in view of Satran et al. (U.S. Pub. No. 2002/0029305) (hereinafter “Satran”), Gentry Jr. et al. (U.S. Patent No. 6,467,008) (hereinafter “Gentry”), and Bennett et al. (U.S. Patent No. 6,345,302) (hereinafter “Bennett”).

Claims 1-3 stand rejected under 35 U.S.C. § 103(a) as being obvious over Connor, in view of Gentry.

Claims 6-7 stand rejected under 35 U.S.C. § 103(a) as being obvious over Connor, in view of Gentry, and Satran.

Claim 8 stands rejected under 35 U.S.C. § 103(a) as being obvious over Connor, in view of Satran.

Claims 9-10 stand rejected under 35 U.S.C. § 103(a) as being obvious over Connor, in view of Gentry and Bennett.

Claim 11 stands rejected under 35 U.S.C. § 103(a) as being obvious over Connor, in view of Bennett.

Claims 15-28 stand rejected under the same arguments provided for claims 1-3, 6, 7, 9, 10 and 12-14.

Claims 12, 6, and 8, and 22

With respect to claim 12, it is submitted that the combination of Connor, Satran, Gentry, and Bennett does not disclose or suggest the use of “*determining whether the type field of the received data frames is identical to a predetermined type field, wherein the type field includes information on the type of data of the received data frames*”.

Claim 12 recites, *inter alia* that the *type field includes information on the type of data of the received data frames*. This amendment is supported, for example, by pg. 17, lines 23-24 in the specification. The Examiner states on pg. 9 of the Office Action that the last packet flag in the header of Satran is the same as the type field. Applicants believe that this is not correct because the type field includes information on the type of data of the received data frames and not information indicating that a packet is a last packet. Connor, Bennett and Gentry do not cure the deficiencies of Satran in this regard.

Accordingly, claim 12 is patentably distinguishable over the combination Connor, Satran, Gentry, and Bennett. Claims 6, 8, and 22 have been amended in similar fashion to claim 12, and are patentable at least for reasons similar to those discussed for claim 12 above. Moreover, claims 13-14 are patentable at least by virtue of their dependence from claim 12, claim 7 is patentable at least by virtue of its dependence from claim 6 and claims 23-24, and 28 are patentable at least by virtue of their dependence from claim 22

Claims 1, 15, 18, and 20

Claims 1 recites a method for generating interrupts of an NIC, wherein interrupts are generated when, for example, a second time delay has passed, *wherein the second time delay is a time interval between received data frames and excludes times of the data frames*. Claims 15, 18, and 20 commonly recite *a second time delay determining circuit, which determines a second time delay in response to the received data frames and stops determining the second time delay in response to the interrupt, wherein the second time delay is a time interval between received data frames and excludes times of the data frames*.

It is respectfully submitted that the combination of Connor and Gentry does not disclose or suggest generating interrupts based on a second delay time “*wherein the second time delay is a time interval between received data frames and excludes times of the data frames*”, much less a *second time delay determining circuit* for determining said second time delay, as essentially claimed in claims 1, 15, 18 and 20. Indeed, as discussed above with reference to the rejection of claim 4, Connor teaches that the time delay as determined actually includes a time portion of a data frame, which is very different from that of the claimed *second delay time*. Moreover, Applicants find nothing in the teachings of Gentry that would cure the deficiencies of Connor in this regard.

Accordingly, for at least the above reasons, claims 1, 15, 18, and 20 are believed to be patentably distinguishable over the combination Connor and Gentry. Moreover, claim 2-5 are patentable at least by virtue of their dependence from claim 1, claims 19, 21, and 26 are patentable at least by virtue of their dependence from claim 18, and claims 21 and 27 are patentable at least by virtue of their dependence from claim 20

Claim 9

With respect to claim 9, it is submitted that the combination of Connor, Gentry, Satran and Bennett does not teach or suggest, “*determining whether the protocol field is identical to a predetermined protocol field if the number of received data frames is not equal to N and generating the interrupt if the protocol field is identical to the predetermined protocol field*”

The Examiner acknowledges on page 10 of the Office Action, that “Connor, Gentry, and Satran combined does not disclose explicitly determining the protocol field.”

However, the Examiner states that Bennett discloses (in FIG. 15) “*determining whether the protocol field of the received data frames is identical to a predetermined protocol field*” and (in col. 14, lines 25-30) “*generating an interrupt if the protocol field is identical to the predetermined protocol field.*”

Even assuming Bennett discloses the above, Bennett does not disclose “*determines whether the protocol field is identical to a predetermined protocol field*” based on satisfying the condition “*if the number of received data frames is not equal to N.*” Indeed, the cited lines do not even show generating an interrupt when the protocol field is identical to a predetermined field, but arguably generation of an interrupt when the protocol field is not equal to 6.

In para. 5 of the Office Action, the Examiner made the following statement with respect to claim 9.

[E]xaminer notes that the prior art teaches various tests (checking time delay, packet count, protocol, etc) under which interrupts can be asserted. In combining these various tests for generating interrupts, it is then obvious that if one test fails to produce an interrupt, another test is checked. As each of the prior art recite a reason for using these tests as a criteria for asserting an interrupt, this combination of the references is not hindsight.

Claim 9 recites, *inter alia*, *determining whether the protocol field is identical to a predetermined protocol field if the number of received data frames is not equal to N and generating the interrupt if the protocol field is identical to the predetermined protocol field*. This means, as an example, that an interrupt is generated when there is a determination of whether the protocol field is identical to a predetermined protocol field based on satisfying the condition that the number of received data frames is not equal to N. And this does not mean, for example, where an interrupt is generated if the protocol field is

found to match a predetermined field, and if not, an interrupt is generated if the number of received data frames is not equal to N.

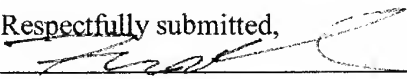
Accordingly, at least for the foregoing reasons, claim 9 is believed to be patentably distinguishable over the combination Connor, Gentry, Satran, and Bennett. Moreover, claim 10 is patentable at least by virtue of its dependence from claim 9.

Claim 11

With respect to claim 11, it is submitted that the combination of Connor and Bennett does not disclose "*determining whether the protocol field is identical to a predetermined protocol field and generating an interrupt if the protocol field is identical to the predetermined protocol field.*" As discussed above for claim 9, Connor, Gentry, and Satran combined do not disclose determining the protocol field. Further, as discussed above for claim 9, Bennett does not disclose generation of interrupt when the protocol field is equal to a predetermined field, but arguably discloses generation of an interrupt when the protocol field is not equal to 6.

Accordingly, claim 11 is believed to be patentably distinguishable over the combination of Connor and Bennett. Accordingly, withdrawal of the rejections is requested.

Respectfully submitted,



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